PCT

RAW SEQUENCE LISTING   DATE: 03/02/2001
PATENT APPLICATION: US/09/763,011   TIME: 12:57:28

        Input Set : A:\CANDIDA.txt
        Output Set: N:\CRF3\03022001\I763011.raw

**Does Not Comply
Corrected Diskette Needed**

```
  5 <110> APPLICANT: Contreras, Roland
  6        Nelissen, Bart
  7        DeBacker, Marianne
  8        Luyten, Walter
  9        Viaene, Jasmine
 10        Logghe, Marc George
 13 <120> TITLE OF INVENTION: Drug Targets In Candida Albicans
 16 <130> FILE REFERENCE: 50899/002
 19 <140> CURRENT APPLICATION NUMBER: US/09/763,011
 21 <141> CURRENT FILING DATE: 2001-02-14
 24 <150> PRIOR APPLICATION NUMBER: 98310694.9
 26 <151> PRIOR FILING DATE: 1998-12-23
 29 <150> PRIOR APPLICATION NUMBER: 9817796.7
 31 <151> PRIOR FILING DATE: 1998-08-14
 34 <160> NUMBER OF SEQ ID NOS: 114
 38 <170> SOFTWARE: PatentIn Ver. 2.0
 42 <210> SEQ ID NO: 1
 44 <211> LENGTH: 1851
 46 <212> TYPE: DNA
 48 <213> ORGANISM: Candida albicans
 52 <400> SEQUENCE: 1
 54 atgtcattag ataattcaac agaaaaccgt gatttggaag aaaaggaaga aattccaaag 60
 56 aacgaacata acgaacaagg cgaacaaaac gagaacaatg agcatatacc tactttggaa 120
 58 gataaaccat tgaaggaata tattggtatt agtattttgt gtttccttat tgcctttggt 180
 60 ggtttcgttt ttggtttcga tactggtacc atttctggtt tcattaacat gactgacttt 240
 62 ttagaaagat ttggtggtac taaagctgac ggtactcttt acttttccaa cgttagaact 300
 64 ggtttattga ttggtttgtt caatgtgggt tgtgccattg gtgcattatt cttgtccaaa 360
 66 gtcggtgata tgtacggtag aagagttggt atcatgactg ctatgatcat ttatattgtt 420
 68 ggtattattg ttcaaattgc ttctcaacat gcttggtatc aaatcatgat tggtagaatt 480
 70 atcactggtc ttgctgttgg tatgttatca gttttgtgtc cattatttat ctcagaggtt 540
 72 tctcccaaac atttaagagg tacattagtt tattgtttcc aattgatgat taccttgggt 600
 74 attttcttgg gttactgtac cagttacggt actaagaaat attctgactc cagacaatgg 660
 76 agaattccat tgggtttatg ctttgcttgg gccttgtgtt tgcttggtgg tatggtaaga 720
 78 atgccagaat ctccacgtta ccttgtcggt aaagatagaa ttgacgatgc taagatttca 780
 80 cttgccaaaa ctaacaaggt ttctccagag gaccctgcat ataccgtga acttcaatta 840
 82 atccaagctg gtgttgaaag agaaagattg gccggtaagg catcttgggg tgctttaatc 900
 84 actggtaaac caagaatcct tgaaagagtt attgttggag gtatgttgca atcattgcaa 960
 86 caattgactg gtgataacta tttcttctac tacagtacca ccattttcaa gtctgtcggt 1020
 88 ttaaatgatt ccttcgaaac atctattatc cttggtgtca tcaactttgc ttccactttt 1080
 90 gttggtattt atgccattga aagattgggt agaagacttt gtttattaac tggttccgtt 1140
 92 gccatgtcca tttgtttctt aatttactca ttgattggta ctcaacatct ttacattgat 1200
 94 caaccaggtg gtccaaccag aaaaaccagat ggtaacgcta tgattttcat tactgcactt 1260
 96 tatgttttct tcttcgcttc tacatgggct ggtggtgtct actccattgt ttctgaactt 1320
 98 tatccattaa aagtcagaag taaggctatg ggttttgcta atgcatgtaa ctggttgtgg 1380
100 ggtttcttga tttccttctt cacttcattt atcactgatg ctatccactt ctattatggt 1440
102 tttgtgttta tgggctgttt agtgtttttcc attttctttg tttactttat gatttatgaa 1500
104 actaaaggtc ttactttaga ggaaattgat gaattatact ctaccaaggt tgttccatgg 1560
```

Input Set : A:\CANDIDA.txt
Output Set: N:\CRF3\03022001\I763011.raw

```
106 aaatcagccg gttgggttcc accttctgac gaagaaatgg ttcgtgcaaa aggctatact 1620
108 ggtgatatcc acgcagatga agagcaagtt taatcaactc tttgtcaatt aatgctgtac 1680
110 ttgtttttcat tttatttgct ggcatttaaa gaatacccat agttcagaaa ataaaattga 1740
112 aaaatttaaa aaaaaacgca atatcattca ttttttttgt tttttgaca ataatattaa 1800
114 tatgtagtta ccaatgtttt tagattttat atgttttgaa aaaatagttt g         1851
118 <210> SEQ ID NO: 2
120 <211> LENGTH: 648
122 <212> TYPE: DNA
124 <213> ORGANISM: Candida albicans
128 <400> SEQUENCE: 2
130 aacctcttat tcggttctag tgtctcaatt ggttatccat taacatctat tcccaactcc 60
132 atcattattg gcaataaata aatgggtgtt atatctattg gtaataacta aactggtgtc 120
134 aattcaattc caatatggtc atgacaattg aaagtgttac tgttctggtt tacatattct 180
136 acaggttaca actattgatt ggttagaagt ttggtttcaa catcacctgt tgctaagaat 240
138 aaatgttggt catatcaatt gaatcatttg ttggtgttat ggtaagtaaa tgctggttat 300
140 atctattatc tacaaccacc aagtgataaa tgctgaaccg tagtcaccaa ctgttatgct 360
142 ggttgtatct attgactaaa actaccctag ggataaatgc tgaaccgtgg ttaccaactg 420
144 ttatgctggt tgtatctatt aactgcaacc accaaatgat aaatgctgaa ccataattac 480
146 caactgttac attgctggta ctacattaag aataaatgct gcatctacaa gtaccacctg 540
148 ttgtgttaat aaatgctgca cctgctagta caactgttgc tggtcatgat agttactaca 600
150 cattacacac cagacagtgg caaacaaggt tatgtagaaa ccaacgtt            648
154 <210> SEQ ID NO: 3
156 <211> LENGTH: 1497
158 <212> TYPE: DNA
160 <213> ORGANISM: Candida albicans
164 <400> SEQUENCE: 3
166 gatatctgca gaattcggct tctctctcat cttcacacaa tgcattttac aagtagccta 60
168 ctagccacct tgatatggtt tacattaccg gttcaaagtt tgaatactga atctaggaca 120
170 acttcaaata acacaatatc aatacttaca aaccattttc aaatactaaa ggatttgcta 180
172 ccatatagca aaacttctaa accgcaaatc aaggaatcca gaccgttgat taaagttctg 240
174 agagatggag tgccaataaa tttccacagg gctccggcta taataatgaa atcgaacaaa 300
176 acagacgatt tagtcaggaa tagcaataaa acaatggtgc taactgaaat aaaaacgatt 360
178 actgaatttg caactaccac tgtttcccct acacaagaat ttcaagcact acagataaac 420
180 cttaacacgt tatcaataga gacttcaaca ccaacattcc aatcccatga ctttccaccg 480
182 attaccattg aagacacacc caaaacacta gaaccagaag aatcgtcaga tgctttgcag 540
184 agggatgcat ttgatcaaat taagaaacta gaaaaattgg tattggattt gagacttgaa 600
186 atgaaagagc aacaaaagag tttcaacgat caattagtgg atatatatac cgcaagaagt 660
188 attgttccaa tttatactac acatatcgtc acttcggcga ttccatcgta tgtaccaaaa 720
190 gaagaagtaa tggtttcaca tgatactgca ccaattgtaa gtcgtcctag aacagatatt 780
192 ccagtatctc aacgaattga tactatctca aaacataaaa tgaatggaaa aaatatattg 840
194 aacaacaatc ctccgcccaa ttcagtttta atagttcctc agtttcagtt ccatgaaaga 900
196 atggccacca aaaccgaagt agcttatatg aaaccaaaaa ttgtctggac caactttcca 960
198 accactactg caacgtcaat gtttgacaat tttattttaa aaaatcttgt tgacgaaacg 1020
200 gattctgaaa ttgatagtgg tgaaactgaa ttgtctgacg attattatta ctattatagt 1080
202 tacgaagatg atggtaaaga agacgatagt gatgagatta cggctcaaat actattatcc 1140
204 aattcagaat taggcacgaa gacgccaaat tttgaggatc cttttgaaca aatcaatatt 1200
206 gaagacaata aagtaatatc tgttaataca ccaaagacaa agaaacctac tacaacagta 1260
208 tttggcactt ctactagtgc attatcaact tttgaaagta caatatttga aattcccaaa 1320
210 ttcttttatg gtagcagaag aaaacaactg agctcattca aaaataagaa cagtacaatc 1380
```

Input Set : A:\CANDIDA.txt
Output Set: N:\CRF3\03022001\I763011.raw

```
212 aaatttgatg tgtttgattg gatatttgaa agtggtacta ccaatgagaa agtacatgga 1440
214 ttagtgttgg tgtctagtgg tgttctacta ggaacttgtc tattgttcat tttgtag     1497
218 <210> SEQ ID NO: 4
220 <211> LENGTH: 485
222 <212> TYPE: PRT
224 <213> ORGANISM: Candida albicans
228 <400> SEQUENCE: 4
230 Met His Phe Thr Ser Ser Leu Leu Ala Thr Leu Ile Trp Phe Thr Leu
232   1               5                  10                  15
236 Pro Val Gln Ser Leu Asn Thr Glu Ser Arg Thr Thr Ser Asn Asn Thr
238              20                  25                  30
242 Ile Ser Ile Leu Thr Asn His Phe Gln Ile Leu Lys Asp Leu Leu Pro
244          35                  40                  45
248 Tyr Ser Lys Thr Ser Lys Pro Gln Ile Lys Glu Ser Arg Pro Leu Ile
250      50                  55                  60
254 Lys Val Ser Arg Asp Gly Val Pro Ile Asn Phe His Arg Ala Pro Ala
256  65                  70                  75                  80
260 Ile Ile Met Lys Ser Asn Lys Thr Asp Asp Leu Val Arg Asn Ser Asn
262              85                  90                  95
266 Lys Thr Met Val Leu Thr Glu Ile Lys Thr Ile Thr Glu Phe Ala Thr
268             100                 105                 110
272 Thr Thr Val Ser Pro Thr Gln Glu Phe Gln Ala Leu Gln Ile Asn Leu
274             115                 120                 125
278 Asn Thr Leu Ser Ile Glu Thr Ser Thr Pro Thr Phe Gln Ser His Asp
280         130                 135                 140
284 Phe Pro Pro Ile Thr Ile Glu Asp Thr Pro Lys Thr Leu Glu Pro Glu
286 145             .   150                 155                 160
290 Glu Ser Ser Asp Ala Leu Gln Arg Asp Ala Phe Asp Gln Ile Lys Lys
292             165                 170                 175
296 Leu Glu Lys Leu Val Leu Asp Leu Arg Leu Glu Met Lys Glu Gln Gln
298             180                 185                 190
302 Lys Ser Phe Asn Asp Gln Leu Val Asp Ile Tyr Thr Ala Arg Ser Ile
304         195                 200                 205   .
308 Val Pro Ile Tyr Thr Thr His Ile Val Thr Ser Ala Ile Pro Ser Tyr
310     210                 215             .   220
314 Val Pro Lys Glu Glu Val Met Val Ser His Asp Thr Ala Pro Ile Val
316 225                 230             .   235             .   240
320 Ser Arg Pro Arg Thr Asp Ile Pro Val Ser Gln Arg Ile Asp Thr Ile
322             245                 250                 255
326 Ser Lys His Lys Met Asn Gly Lys Asn Ile Leu Asn Asn Asn Pro Pro
328             260                 265                 270 .
332 Pro Asn Ser Val Leu Ile Val Pro Gln Phe Gln Phe His Glu Arg Met
334         275                 280                 285
338 Ala Thr Lys Thr Glu Val Ala Tyr Met Lys Pro Lys Ile Val Trp Thr
340     290                 295                 300
344 Asn Phe Pro Thr Thr Thr Ala Thr Ser Met Phe Asp Asn Phe Ile Leu
346 305                 310                 315                 320
350 Lys Asn Leu Val Asp Glu Thr Asp Ser Glu Ile Asp Ser Gly Glu Thr
352             325                 330                 335
```

RAW SEQUENCE LISTING   DATE: 03/02/2001
PATENT APPLICATION: US/09/763,011   TIME: 12:57:28

Input Set : A:\CANDIDA.txt
Output Set: N:\CRF3\03022001\I763011.raw

```
356 Glu Leu Ser Asp Asp Tyr Tyr Tyr Tyr Tyr Ser Tyr Glu Asp Asp Gly
358             340             345             350
362 Lys Glu Asp Asp Ser Asp Glu Ile Thr Ala Gln Ile Leu Leu Ser Asn
364         355             360             365
368 Ser Glu Leu Gly Thr Lys Thr Pro Asn Phe Glu Asp Pro Phe Glu Gln
370     370             375             380
374 Ile Asn Ile Glu Asp Asn Lys Val Ile Ser Val Asn Thr Pro Lys Thr
376 385             390             395             400
380 Lys Lys Pro Thr Thr Thr Val Phe Gly Thr Ser Thr Ser Ala Leu Ser
382             405             410             415
386 Thr Phe Glu Ser Thr Ile Phe Glu Ile Pro Lys Phe Phe Tyr Gly Ser
388         420             425             430
392 Arg Arg Lys Gln Ser Ser Ser Phe Lys Asn Lys Asn Ser Thr Ile Lys
394         435             440             445
398 Phe Asp Val Phe Asp Trp Ile Phe Glu Ser Gly Thr Thr Asn Glu Lys
400     450             455             460
404 Val His Gly Leu Val Leu Val Ser Ser Gly Val Leu Leu Gly Thr Cys
406 465             470             475             480
410 Leu Leu Phe Ile Leu
412             485
418 <210> SEQ ID NO: 5
420 <211> LENGTH: 2193
422 <212> TYPE: DNA
424 <213> ORGANISM: Candida albicans
428 <400> SEQUENCE: 5
430 atgcaaccca cggtacaaca ctttaagatc ctagggatat ctcccacgtc aacattagat 60
432 gaaatcagga gggcataccg caaactatca ttgcgatacc accctgacaa aacaccacgt 120
434 cgagaagatc atgaaaaatt taaagagatc aatatagcat atgaaacaat tagagattat 180
436 tatcaagaga atgggcaaaa gaacagtcaa ccgatcccta acacaaacac agagcataat 240
438 tcccatcaaa aaccacatta taacactggc ccttattcca catatcgttt tacgacctca 300
440 tctaccacga ctgataatac caatcacact ggacattcaa gttctcggtt tacttattat 360
442 aatttccacc aaaaagcgca agagaataac cgcaaacaag atgaagaaag ggcagcccaa 420
444 cgtgaacgat taaaaaagga gctcttccag aggcaacaag cggaagaagc acaacgaaag 480
446 aaggaatttg aacaaaaggc cgaattcatc aaagcatcat tacttgaaat gcgccgaaga 540
448 gaaatagaga ggcggaaaca gcaaaaggaa agggaacaaa gacaaaagga gcacgaagca 600
450 aagagggata tcaggataca acaactttca gagcaggatt cacggagtaa tcaaactaaa 660
452 gaagaagagg aagtgttcaa gaaggcccgg tctactaatt cgggagcaga cgagactggt 720
454 ttgatgtcag ataaagagtt tgatgattct gcatattcac ccgattattt gtttgaagag 780
456 aatttgtgga ataaaccaaa tcatccagat acaaatcata aaaccaaaaa atatactgag 840
458 aatgtggttg aaaatctaga ttctccacca aatgatacat ctgcgtacaa ttcaagtttt 900
460 catgatgaaa ctaatattca aaatgagatc caaataccag aaaatgacga gtatgtacca 960
462 cagatgaaag ctacatccag tgtcaataat accaccatcc ctgcacaaag aagacatgag 1020
464 tcactttcca cttctgaaaa caaaagaagg aaatttgaaa cagccgacgt tggggttgat 1080
466 gggttagatt ccccagtgcg ggcacaacca gaaatatctg gaaatccaa gtctccgata 1140
468 atccctgatg taatactttt actggacgaa gagactgaaa ctcctgaagc aaatgctgtg 1200
470 caggacaata gtacatatat tcctcagggg tctttaggac acgaatttag aaatattttg 1260
472 gaagagcatc cacgtcaagt aaagaataaa caaaattctg gtgttgcttt tgcatttccg 1320
474 aatgcttcca agaataccga aaacaaactc cactctaatt tcaaagataa agatgaagga 1380
476 ataattgatg ttgaagctta cgtacctgat gtcaaagcag caacttcaaa caccaccccca 1440
```

RAW SEQUENCE LISTING   DATE: 03/02/2001
PATENT APPLICATION: US/09/763,011   TIME: 12:57:28

Input Set : A:\CANDIDA.txt
Output Set: N:\CRF3\03022001\I763011.raw

```
478 gcaacaggac aaacatcagc aaggtcggaa aaactgccac ccttacctac tcatattcca 1500
480 aatccatcga ccatgaatga agctcgacct catccaacaa ctccacataa aagatcaaaa 1560
482 gtcattttcg atttaaaaga tttagaacaa aagttaggta atgatattga ggatttggat 1620
484 tttaaggata tgtatgagag tttgcctgac cattcaagta aggcaacacc taaagacgat 1680
486 attttaaccc gttctaaaag aagactttat acatataccg atggaacatc aaaggctgaa 1740
488 acgttatcta caccaatgaa caaaaatcct gttcgtggac atagtaccaa gaaaaagctt 1800
490 agtatgttgg acatgcatgc gtcttctaaa attcaaagtc ttttacctcc acaaccgcca 1860
492 caaatgtcaa ttgatccttc tgtttccaag caagtgtggg ctaaatacgt tgatgcaatc 1920
494 ttgacttatc aaagagaatt tttcaattat aaaaaagtga ttgttcaata ccaaatggaa 1980
496 cggataaaca aagaccttga acattttgac gatataaatg atggttcaca cactgagaat 2040
498 ttggatactt tcaagcattg tttagaacaa gattatttgg ttatgagtga gtttaatgaa 2100
500 gcgttacgac aatttggtac gaccattgcc acgtatcagc aaaacctcca gtgggttaac 2160
502 actttcatgg aaagggatcc taattggcta taa                               2193
```

506 <210> SEQ ID NO: 6
508 <211> LENGTH: 730
510 <212> TYPE: PRT
512 <213> ORGANISM: Candida albicans
516 <400> SEQUENCE: 6
518 Met Gln Pro Thr Val Gln His Phe Lys Ile Leu Gly Ile Ser Pro Thr
520 1   5   10   15
524 Ser Thr Leu Asp Glu Ile Arg Arg Ala Tyr Arg Lys Leu Ser Leu Arg
526   20   25   30
530 Tyr His Pro Asp Lys Thr Pro Arg Arg Glu Asp His Glu Lys Phe Lys
532   35   40   45
536 Glu Ile Asn Ile Ala Tyr Glu Thr Ile Arg Asp Tyr Tyr Gln Glu Asn
538   50   55   60
542 Gly Gln Lys Asn Ser Gln Pro Ile Pro Asn Thr Asn Thr Glu His Asn
544 65   70   75   80
548 Ser His Gln Lys Pro His Tyr Asn Thr Gly Pro Tyr Ser Thr Tyr Arg
550   85   90   95
554 Phe Thr Thr Ser Ser Thr Thr Thr Asp Asn Thr Asn His Thr Gly His
556   100   105   110
560 Ser Ser Ser Arg Phe Thr Tyr Tyr Asn Phe His Gln Lys Ala Gln Glu
562   115   120   125
566 Asn Asn Arg Lys Gln Asp Glu Glu Arg Ala Ala Gln Arg Glu Arg Leu
568   130   135   140
572 Lys Lys Glu Leu Phe Gln Arg Gln Gln Ala Glu Glu Ala Gln Arg Lys
574 145   150   155   160
578 Lys Glu Phe Glu Gln Lys Ala Glu Phe Ile Lys Ala Ser Leu Leu Glu
580   165   170   175
584 Met Arg Arg Arg Glu Ile Glu Arg Arg Lys Gln Gln Lys Glu Arg Glu
586   180   185   190
590 Gln Arg Gln Lys Glu His Glu Ala Lys Arg Asp Ile Arg Ile Gln Gln
592   195   200   205
596 Leu Ser Glu Gln Asp Ser Arg Ser Asn Gln Thr Lys Glu Glu Glu Glu
598   210   215   220
602 Val Phe Lys Lys Ala Arg Ser Thr Asn Ser Gly Ala Asp Glu Thr Gly
604 225   230   235   240
608 Leu Met Ser Asp Lys Glu Phe Asp Asp Ser Ala Tyr Ser Pro Asp Tyr

<210> 13

<211> 302

<212> PRT

<213> Candida albicans

<400> 13

Met Pro Arg Phe Lys Gln Val Asp Val Phe Thr Asn Val Lys Tyr Leu

1   5   10   15

Gly Asn Pro Val Ala Val Ile Tyr Asp Ser Asp Asn Leu Thr Thr Gln

            20   25   30

Glu Met Gln Lys Ile Ala Arg Trp Thr Asn Leu Ser Glu Thr Thr Phe

        35   40   45

Ile Leu Thr Pro Lys Ser Ser Ile Ala Xaa Tyr Ser Ile Arg Ile Phe

    50   55   60

Thr Ser Gly Gly Asn Glu Leu Pro Phe Ala Gly His Pro Thr Leu Gly

65   70   75   80

Thr Ala Phe Ala Leu Leu Glu Asp Gly Lys Ile Lys Pro Asn Asp Asn

                85   90   95

Gly Gln Ile Ile Gln Glu Cys Gly Ala Gly Leu Val Lys Ile Ser Val

                100   105   110

Glu Lys Thr Pro Asn Asn Asn Ser Asn Glu Leu Pro Phe Leu Leu Ser

                115   120   125

see item 10 on Error Summary Sheet

Phe Glu Leu Pro Tyr Phe Lys Phe His Glu Ile Asp Asp Lys Val Ile
    130   135   140

Glu Glu Leu Gln His Ser Trp Asn Gly Thr Asn Ile Ile Gly Lys Pro
145   150   155   160

Val Leu Ile Asp Ala Gly Pro Lys Trp Ala Val Phe Gln Leu Gly Ser
                165   170   175

see item 10

only erased portions of seq. 13 shown

Gly Lys Glu Val Leu Asp Leu Asn (Xaa) Asp Leu Ala Gln Ile Glu Arg
                180   185   190

Leu Ser Leu Glu Asn Gly Trp Thr Gly Ile Gly Val Phe Gly Lys His
                195   200   205

Asn Glu Asn Gly Asp Ser Val Glu Leu Arg Asn Ile Ala Pro Ala Val
    210   215   220

Gly Val Ala Glu Asp Pro Ala Cys Gly Ser Gly Ser Gly Ala Ile Gly
225   230   235   240

Ala Tyr Leu Ala Asn His Val Phe Asn Glu Lys Glu Lys Phe Thr Ile
                245   250   255

Asp Ile Ser Gln Gly Lys Pro Ile Glu Arg Asp Ala Lys Ile Gln Val
                260   265   270

FYI

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
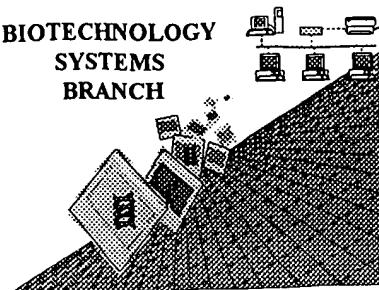<223> fields of each sequence which presents at least one n or Xaa.

Input Set : A:\CANDIDA.txt
Output Set: N:\CRF3\03022001\I763011.raw

```
L:19 M:270 C: Current Application Number differs, Replaced Application Number
L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1060 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13
L:1060 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13
L:1060 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13
L:1060 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:13
L:1060 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:13
L:1108 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13
L:1108 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13
L:1108 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13
L:1108 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:13
M:340 Repeated in SeqNo=13
L:5730 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:57
L:5730 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:57
L:5730 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:57
L:5730 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:57
L:5730 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:57
L:6618 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:58
L:6618 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:58
L:6618 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:58
L:6618 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:58
L:6618 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:58
L:13306 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:114
L:13306 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:114
L:13306 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:114
L:13306 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:114
L:13306 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:114
L:13324 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:114
L:13324 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:114
L:13324 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:114
L:13324 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:114
M:340 Repeated in SeqNo=114
```

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _09/763,011_

Source: _PCT 09_

Date Processed by STIC: _3/2/2001_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**
FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 3.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
http://www.uspto.gov/web/offices/pac/checker